

**Jetstream-31 (J31) Flight Report for INTEx-ITCT
Flight 23 - 7 August 2004**

2 spirals over Ron Brown, & its sonde. Langley calibration at sunset.

Cabin Crew: Eilers, Livingston, Pommier, Schmid.

Overview

This was the 17th J31 flight out of Pease. Goals focused on Langley calibration at sunset and spirals over Ron Brown, & its sonde and lidars. All goals were met.

J31 and its instruments performed well.

Flight Path, Timing, and Measurements

Flight path is shown in Figure 1 below. Take off at 1934 UT.

Out of Pease climb to 6km and transit at that altitude towards Ron Brown (42° 49.9' N 68° 45' W). Continuous radio contact with ship (Marine Band 82). Requested sonde release. Points on this leg will be used for Langley plot

Ron Brown under broken clouds. J-31 did spiral to 60 m (2020 UT) and back-up to 6 km at some distance from ship to avoid clouds. Ron Brown released sonde 2013 UT.

Continued runs at 6 km until sunset

RTB . Touchdown at 2400 UT.

Instrument status

AATS-14; OK

POS: OK.

Nav/Met: OK

SSFR:OK

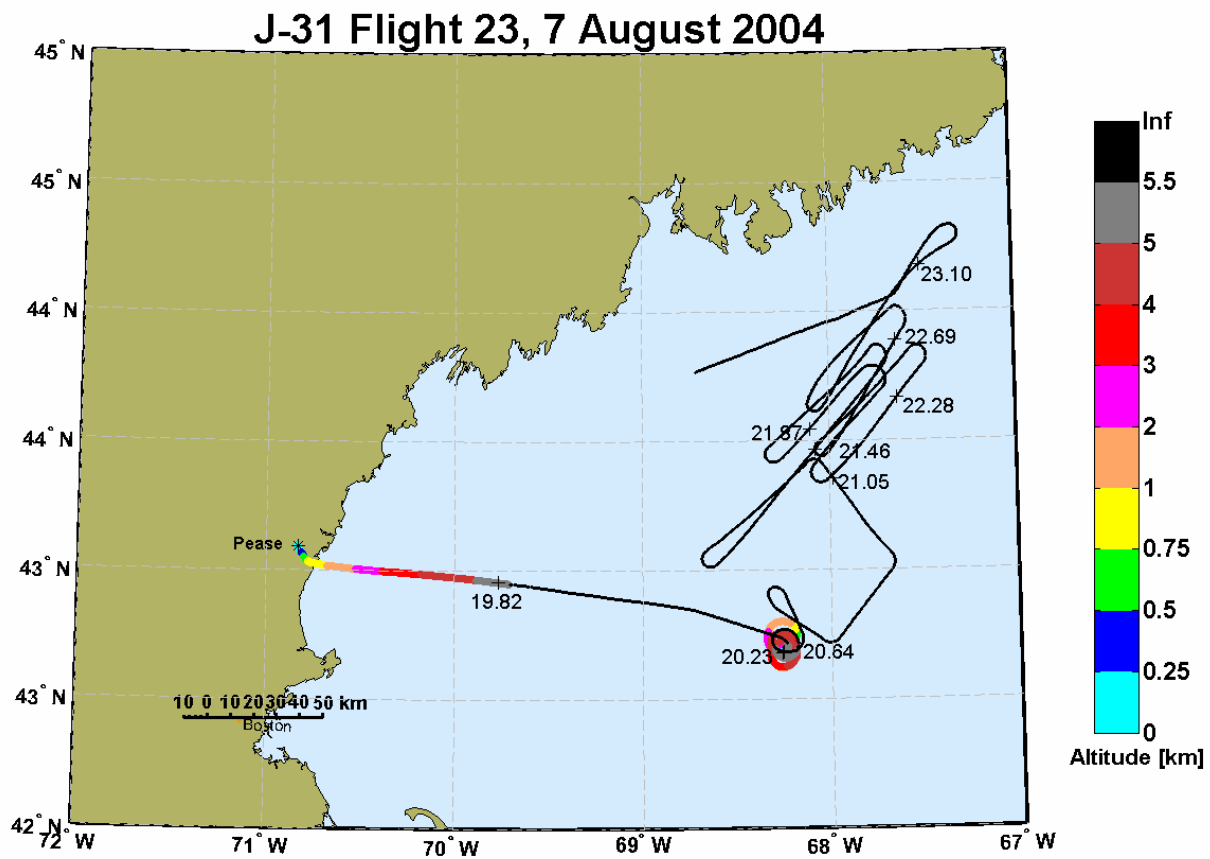


Figure 1. Flight track of J-31, Flight 23, August 7, 2004. Spiral over Ron Brown is at southernmost location of track.

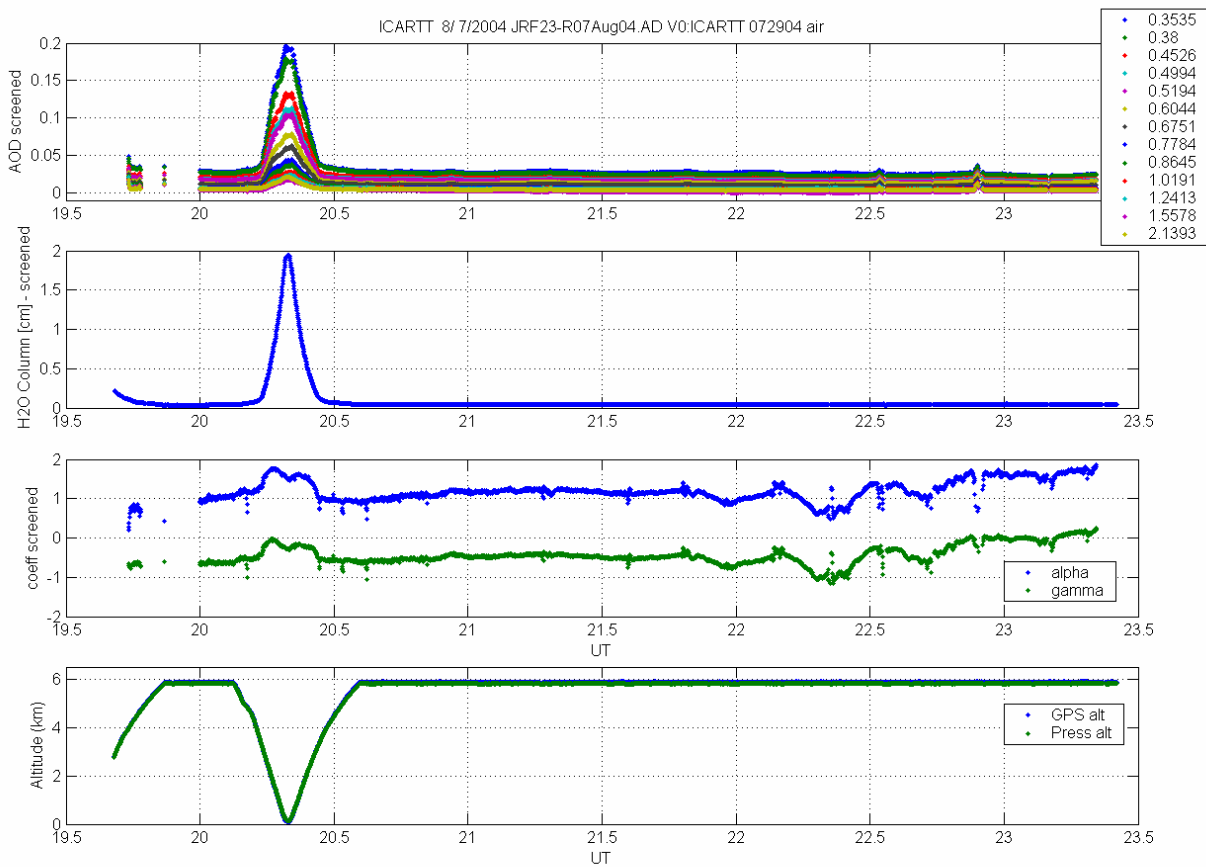


Figure 2. Time series of AATS-14 retrieved AOD, water vapor column, spectral coefficients and flight altitude for J-31 Flight 22, August 7, 2004.

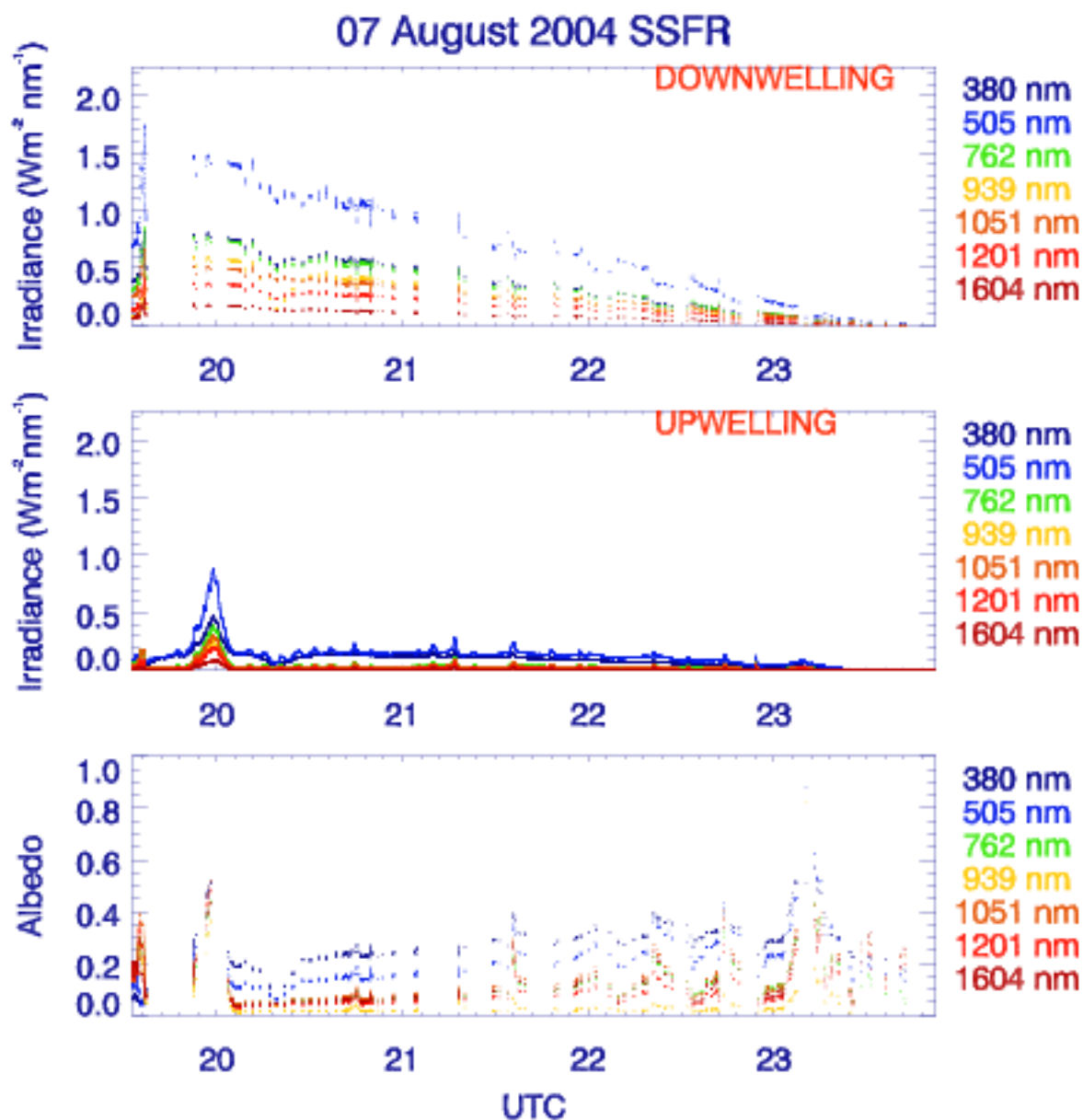


Figure 3. Time series of SSFR-measured downwelling and upwelling irradiance and albedo for J31 Flight 23, Aug 7, 2004. The downwelling (and albedo) has been filtered to remove data when the aircraft attitude deviated by more than 3% from level. The fact that J31 was in a spiral for some of the flight produces the speckled pattern in the downwelling and albedo time series.